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ENGINE

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CADILLAC

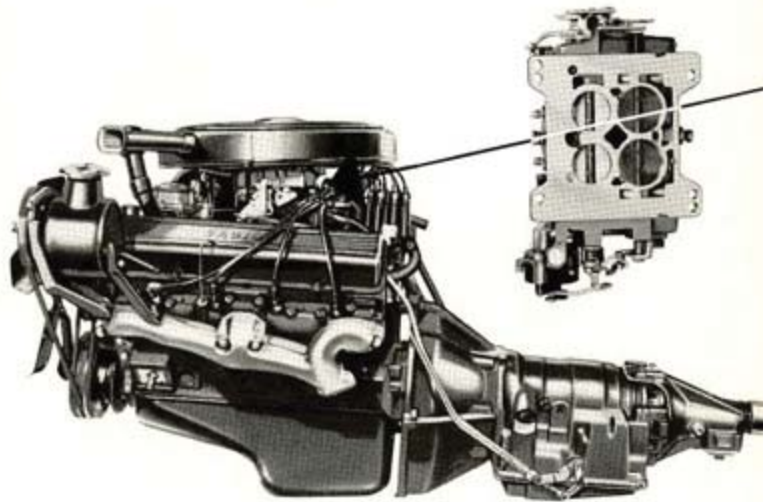
ENGINE FEATURES

... for efficient, dependable and
economical performance

 Since the inception of the first Cadillac motor car, the objective in the designing and building of Cadillac engines has been to produce the finest, best balanced power plant in the luxury car field; an engine that can move a Cadillac through traffic with effortless ease and flexibility, carry it swiftly up steep mountain grades without hesitation and perform hour upon hour at turnpike speeds with no audible sign of its presence. Equally important, however, is the fact that this satisfying surge of power must be delivered with the utmost dependability, durability and economy . . . a combination for which you will find the 1960 Cadillac engine has no parallel.

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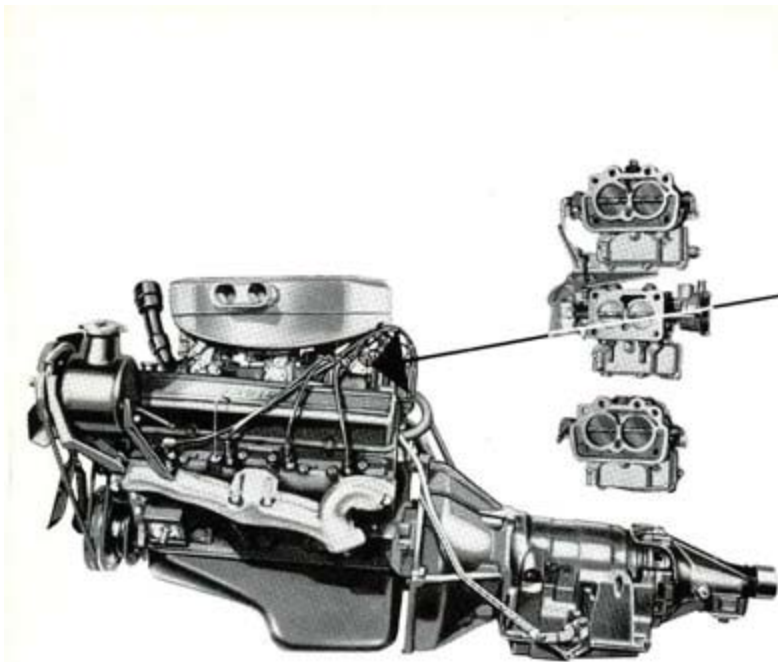




325-HORSEPOWER CADILLAC ENGINE

Each of the two Cadillac engines, shown here, provides all of the advanced engineering features explained on the following pages with the basic difference in carburetion.

The 325-horsepower Cadillac engine, shown above, is equipped with a single, four-barrel carburetor which works as two sets of dual-barrel carburetors. The forward unit, with smaller barrels, acts as the basic or primary carburetor which feeds the engine economically during idling and at normal cruising speeds. The aft unit with larger dual barrels is the booster or secondary carburetor. When the accelerator is depressed further to the floor as for rapid acceleration or climbing steep hills, the larger secondary dual barrels open to permit a greater volume of air to be drawn into the intake manifold and thus into each cylinder for increased power and/or acceleration.



345-HORSEPOWER CADILLAC "Q" ENGINE

The 345-horsepower Cadillac engine, above, is provided as standard equipment on the Eldorado Biarritz, Seville and Brougham, and optional at extra cost on all other models. It provides all of the dependability, durability, smoothness and quietness expected of Cadillac engine performance but with additional benefits for the owner through use of a three, dual-barrel carburetor.

The central dual-barrel unit, used for all normal operation including starting, idling and cruising speeds, assures maximum efficiency and dependability because of the relative simplicity of single carburetor adjustment.

However, when the driver depresses the accelerator pedal beyond 75% of its travel, both secondary dual-barrel carburetors open simultaneously releasing a vast increase in power for maximum safety in passing another car, for fast emergency acceleration or for traveling up very steep grades.

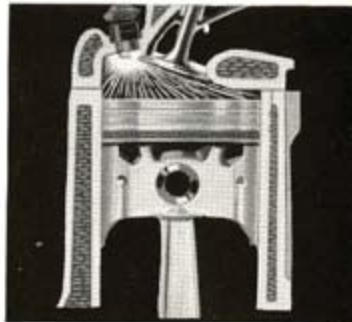
RESPONSIVE POWER
FOR ANY
DRIVING CONDITION



— In city traffic or on busy highways the Cadillac owner finds greater driving pleasure and safety, too, in the assured response which greets his lightest touch on the accelerator. And, cruising at turnpike speeds, there is equal satisfaction and wonderful peace of mind in the effortless performance of his Cadillac, hour upon hour, without a murmur of protest. Encounter the steepest grade and even now he finds a vast reserve of untapped power, for the Cadillac engine is seldom extended to capacity throughout its entire lifetime.

EFFICIENT COMBUSTION

Cadillac's wedge-shaped combustion chambers are designed with a high 10.5 to 1 compression ratio; depressed contour in each piston head to increase turbulence and combustibility of the air-fuel mixture; and efficient cooling at the vortex of the wedge so that combustion is perfectly timed without danger of pre-ignition. Better oil economy, for 1960, is provided by new, side-sealed piston oil rings.



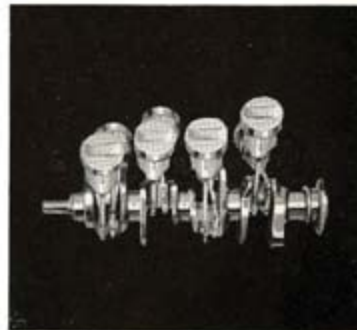
UNRESTRICTED BREATHING

The Cadillac engine has exceptional breathing efficiency because of an intake manifold with large smooth passages, large diameter, high-lift intake valves and large exhaust valves tapered to speed the exiting gases. Camshaft and valve operating linkage minimize fractional time during which intake and exhaust valves are both partially open, thus reducing dilution of incoming fuel-air mixture with unexpelled exhaust gases.



MORE POWER PER POUND OF ENGINE WEIGHT

The Cadillac engine delivers more horsepower per pound of engine weight than any in the luxury car field. This efficiency translates into practical benefits for the Cadillac owner. The use, for example, of lightweight pistons and connecting rods means that less fuel energy is expended in overcoming their inertia leaving more power to drive the car and accessories.



MAXIMUM EFFICIENCY IN ALL SPEED RANGES



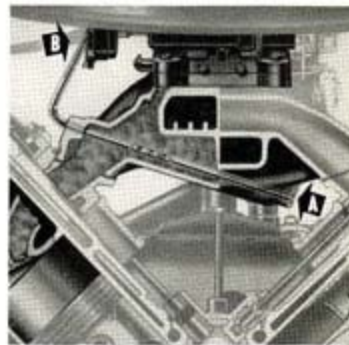
— The efficiency of the Cadillac engine can be measured from the very moment it is started. The automatic choke, for example, because of an exclusive super-sensitive heat control, starts reducing the richness of the fuel mixture the instant the engine begins to warm up. This brings the engine to its peak efficiency and most economical performance far faster. Even on subsequent starts, if the engine is still warm, the choke is prevented from unnecessary enriching of the fuel mixture assuring maximum starting efficiency and further economy. Engine efficiency, under sustained idling, is assured, too, by a heat sensitive valve which lets more air through the carburetor as required to prevent roughness or stalling.

EFFICIENT ENGINE WARM-UP

The Cadillac automatic choke is controlled by a heat-resistant, nickel alloy tube which extends into and through the exhaust section of the intake manifold where it is subjected to the hot exhaust gases from the moment the engine is started.

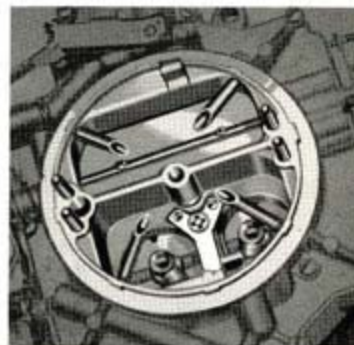
Outside air, entering the tube at "A", heats up faster and, rising to the choke control "B", causes it to open the choke valve more quickly thus bringing the engine to its smoothest, most powerful and most economical operation at the earliest possible moment.

Since the tube retains engine heat for longer periods of time after the engine is turned off, it prevents unnecessary choking of the engine during subsequent starts.



SMOOTHER, STEADIER IDLING

Smooth, steady idling performance is assured by the use of a heat-sensitive air control valve in the carburetor. As engine heat increases during any period of sustained idling, the valve begins to open permitting additional air flow through the carburetor. This maintains the correct ratio of air to fuel by compensating for any excess fuel vapors forced into the carburetor because of fuel in the float chamber reaching the boiling point. The result is consistently smooth, stable idling even under the most severe conditions.



DEPENDABILITY FOR THE OWNER AND HIS INVESTMENT



The Cadillac motor car is designed and engineered to provide maximum dependability. Its starting system, for example, is protected by a plastic-coated battery cover for resistance against corrosion; a starting motor with solenoid plunger lever completely within the starter housing for protection against dirt and moisture and a generator with high enough output even at slow car speeds to protect against excessive battery drain. And, of course, the entire ignition system is fully waterproof. Highly efficient cooling and full-pressure lubrication system, including a new full-flow oil filter, further assure the long-lived dependability which makes driving the Standard of the World the most enjoyable as well as the finest investment in all motordom.

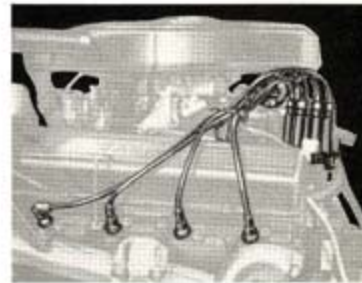
EFFICIENT STARTING SYSTEM

Cadillac's 12-volt, 11-plate battery is thoroughly sealed, has a corrosion resistant plastic-coated cover and is located forward in the engine compartment for better cooling and servicing. Cadillac's high-torque starting motor has gear teeth designed for extra strength, quiet operation and minimum battery drain. Solenoid plunger lever is fully enclosed within housing. The Cadillac high-capacity generator has an output higher than the electrical load normally required by the car even at low speeds, thus protecting against excessive battery drain.



FULLY WATERPROOF IGNITION

The Cadillac ignition system is fully waterproof. For example, neoprene rubber, impervious to oil, is used for ignition wire covering and spark plug boots. Distributor ends of ignition wiring are shielded by vinyl caps while the distributor itself is designed to shed water effectively. A sealed generator regulator further contributes to maximum dependability of engine operation in any weather.



DOUBLE FUEL SYSTEM PROTECTION

For maximum dependability, Cadillac engines have a highly efficient fuel pump to assure a positive flow of fuel from the fuel tank to the carburetor and minimize any possible likelihood of vapor lock in the fuel lines. Double protection against dirt particles or water entering the fuel system is provided by a new fuel filter located in the fuel tank itself. Its finely woven, 2-ply, saran plastic filtering element is self-cleansed by the washing action of the gasoline. Any remaining impurities are removed by the sediment bowl filter in the engine compartment.

